

Remarks

Claim Rejections – 35 USC § 101

Examiner rejects pending claims 19 and 22-26 under 35 USC 101 as being directed to non-statutory subject matter. This rejection is traversed in view of the amendments made to claims 19 and 22. Claims 23-26 are cancelled.

Claims 19 and 22 are amended to refer to computer program claim 20, which has equivalent features.

Claim Rejections – 35 USC § 102

Examiner rejects all pending claims under 35 USC 102(e) as being anticipated by Rajarajan et al. (US 2002/0120784). This rejection is traversed in light of the following remarks.

The present invention is directed to an adaptive software interface which enables communication between diverse entities, in spite of apparent incompatibility of their native interfaces. In particular this adaptive interface is able to mediate between different versions of interface definitions. This solves a problem of prior art Interface Definition Languages (IDLs), in which the ability to successfully establish an interface between two entities is dependent on the availability of at least one common version of the IDL to both at compile time.

The solution of the current invention, as presented in claim 1, is to use structured metadata providing at least one semantic information element describing the characteristics of the entities. By using metadata providing semantic information, the meaning of characteristics can be used to determine compatibility, such that the ability to establish a compatible interface is not dependent on the format or syntax of any IDL used to generate the metadata.

With regard to claim 1, Applicants firstly note that Rajarajan does not disclose “a method of generating an adaptive software interface”. In fact, it does not disclose a method of generating a software interface of any kind. Rajarajan discloses a means of associating a selected semantic with a selected visual representation (notation) to provide a model element having a meaning in a particular context (paradigm). This is clear, for example, from claim 1 of Rajarajan.

It is submitted that this disclosure is of no relevance to the current application, which relates to an adaptive software interface, enabling networked entities to negotiate an interface which they may then use to communicate. However, for completeness, further specific differences between Rajarajan and the current subject-matter will now be detailed.

Examiner notes that Rajarajan is concerned with analyzing compatibility of certain entities. However, in Rajarajan, the “compatibility” at issue is the logical compatibility of a set of semantics with a particular notational (that is, graphical) element in a given visualization/modeling context (or “paradigm”). In other words, the system establishes whether a given icon can have a given meaning in a given context.

Rajarajan appears to imply that the logical entities of the semantic and the notation can be implemented as software objects (or “servers”). However, this does not make them equivalent to the “networked entities” of claim 1. The compatibility at issue is still contextual semantic compatibility, not compatibility of interfaces. Indeed, the step of mutual provision of interfaces by each to the other is presumed to be trivial: “the paradigm server can provide the interfaces of each to one another” (Rajarajan, paragraph 66) is all that is said on the matter. As Examiner helpfully puts it, “servers are checked to ensure they have proper interfaces with one another”. This test results in either success or failure (paragraph 66). Thus there is no contemplation of “generating in accordance with said established compatibility the adaptive software interface”.

Another difference between the system of Rajarajan and that of claim 1 is that the goal of Rajarajan is to separate the semantics and notation (see, for example, paragraph 53). This means that the semantic “server” holds the semantic metadata, while the notation “server” holds the visual representation. Thus, it would be impossible to generate “structured metadata providing at least one semantic information element describing a characteristic of **each** said entity” because the notation server is devoid of such semantic information.

On the basis of at least these differences, it is submitted that the invention of claim 1 is clearly novel and allowable over Rajarajan. Claims 2-7 are considered allowable at least by virtue of their dependence on claim 1.

Claims 19, 20 and 22 contain the same, or similar, limitations as claim 1 and are considered allowable for the same reasons as claim 1.

Turning to claim 8, this contains a similar limitation to that discussed above that metadata is generated “providing a structure containing at least one semantic information element describing a characteristic” of **both** entities involved. Once again, since Rajarajan is concerned with the separation of semantic and notational metadata, this feature of claim 8 is incompatible with Rajarajan's teaching. For this reason, at least, it is submitted that claim 8 is also novel and allowable over Rajarajan. Claims 9 and 10 are considered allowable at least by virtue of their dependence on claim 8.

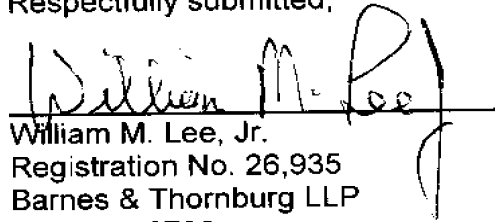
Claim 18 possesses the same feature of “providing at least one semantic information element for each entity” and so the same argument repeated above for claim 8 applies likewise to this claim. Furthermore, claim 18 is directed to a method of “establishing a compatible interface... in the case where an interface of the initiator has at least one differing characteristic from an interface of the responder”. Rajarajan

discloses no such method. By contrast, compatibility of the notation and semantic servers is tested, but if a difference exists, there is no teaching of how to establish an interface in spite of it. On the basis of at least these differences, claim 18 is considered to be allowable.

In view of the fact that all of the Examiner's comments and rejections have been addressed, further and favorable reconsideration is respectfully requested.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line. The signature is stylized with a large, looped "L" and a distinct "Jr." at the end.

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